

Method of Image Formation of Internal Structure of the Object with the Use of X-rays and a Device for Carrying out Said Method

ABSTRACT

The inventions, relating to the facilities for intraviewing, are meant for visible image formation of the internal structure of the object (namely, biological). They are aimed at accuracy increasing of determination of the relative indexes of density of object's substance of the image and avoiding of the usage of expensive technical devices. When these inventions are used in the medicine diagnostics the dose of irradiation of the tissues, surrounding the area under study, decreases.

X-rays is concentrated (for instance, by X-ray lens 2) in the zone with the point 4, to which the current measurement results are referred, in the object's 5 area 7 under study. The formatted secondary scattered radiation of this zone (Compton or fluorescent radiation) is transported (for instance, by X-ray lens 3) toward one or more detectors 6. The scanning of the object's 5 area 7 under study is realized by moving the said zone. The density of the object's substance in the point 4 is defined on the basis of the values of the secondary radiation intensity (these values are derived from one or more detectors 6 and defined simultaneously with the coordinates of the said point). The density values together with the coordinates values, corresponding to them, derived from sensors 11, are used in the facility 12 for data processing and image for the production of the distribution pattern of the substance density in the object's area under study.

2 independent and 18 dependent claims of the formula, 11 diagram figures.